REMARKS

The following claims stand rejected under 35 U.S.C. § 102 as anticipated by "anticipatory references", as follows:

1. Claims 1, 3-4, 6-7, 9-16 and 18-19 by US H2113 (Nichols et al);
2. Claims 1-6, 9-16 and 18-19 by EP 1167466 (Hirasa et al); and
3. Claims 1, 6, 9-10, 12 and 18-19 by U.S. 2004/0092622 (Pearlstine et al).

The following claims also stand rejected under 35 U.S.C. § 103(a) as unpatentable, as follows:

4. Claim 2 over Nichols et al in view of U.S. 6,245,832 (Suzuki et al);
5. Claim 5 over Nichols et al or Pearlstine et al, either of which in view of Hirasa et al;
6. Claim 8 over Nichols et al in view of EP 1219689 (Sano et al);
7. Claims 7-8 over Hirasa et al in view of Sano et al;
8. Claim 17 over Nichols et al or Hirasa et al, either of which in view of U.S. 5,879,439 (Nagai et al) and U.S. 5,748,208 (Uchiyama et al).

The above rejections are all traversed.

As recited in above-amended Claim 1, an embodiment of the present invention is a pigment-dispersed aqueous recording liquid containing at least a pigment and resin, which comprises from 60 to 200 parts by weight of the resin to 100 parts by weight of the pigment, wherein at least one of the resin is a water-dispersible urethane based resin having an acid value of 50 to 200 mgKOH/g, and a weight fraction of a polyurethane urea part of which is at most 2.0 wt% to the urethane based resin, and the pigment dispersed in the recording liquid has a dispersion particle size D50 of from 40 to 100 nm.

The invention is characterized by (1) limiting the polyurethane urea content of the urethane based resin to at most 2.0 wt%, (2) employing a resin to pigment weight ratio of from 0.6:1 to 2:1, which ratio is generally higher than that of the prior art, and (3) employing a urethane based resin having an acid value of 50 to 200 mgKOH/g.

The Examiner's rationale for applying the anticipatory references is that particular polyurethanes described therein are prepared in the absence of polyamine chain extender and water and therefore, necessarily have a urea content of at most 2.0 wt%.

The Examiner relies specifically on the polyurethane described in Example II of Nichols et al. However, Example II thereof discloses a urethane based resin having an acid value of 22 mgKOH/g (column 18, lines 46-47). More broadly, Nichols et al discloses an acid value of from about 10 to about 40 mgKOH/g (column 4, line 27). Thus, Nichols et al neither anticipates or otherwise suggests a urethane based resin having an acid value of 50 to 200 mgKOH/g.

The Examiner relies specifically on the polyurethane described in Example 1 of Hirasa et al [0082]. In said example, a polyurethane is obtained using the same chain extender, i.e., 2-[(2-aminoethyl)amino]ethanol, as that used to prepare urethane resin (D) herein, as described in the specification at page 39, line 3ff, which was used to prepare Comparative Example 1 herein as described in the specification at page 46, lines 5-18. As Table 6 herein shows, the polyurethane urea content for Comparative Example 1 is 2.4 wt%. Thus, there is no support for the Examiner's finding that the polyurethane of Hirasa et al would inherently have a polyurethane urea content less than 2.0 wt%.

The Examiner relies specifically on the polyurethane described for PUD 4 of Pearlstine et al [0137-0142]. However, while these paragraphs describe preparation of a prepolymer, which is usually prepared in the absence of water, subsequent paragraphs [0143]-[0145] describe preparation of a polyurethane from the prepolymer, and tert-

butylacrylate in the presence of water. Thus, the Examiner's rationale, i.e., that because the polyurethane of Pearlstine et al is prepared in the absence of water, it inherently has a polyurethane urea content less than 2.0 wt%, must fail.

None of the remaining prior art combined with the anticipatory references remedies the deficiencies in each of these references discussed above.

For all the above reasons, it is respectfully requested that the rejections over prior art be withdrawn.

The rejection of Claims 1-13 and 18-19 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Indeed, the rejection would now appear to be moot. Accordingly, it is respectfully requested that this rejection be withdrawn.

Applicants respectfully call the Examiner's attention to the Information Disclosure Statement (IDS) filed October 2, 2006. The Examiner is respectfully requested to initial the Form PTO 1449 submitted therewith, and include a copy thereof with the next Office communication.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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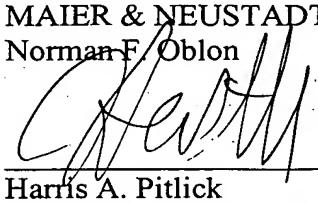

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